

use); BIOL (Biological study); USES (Uses)
 (curable dental compns. with antimicrobial properties)

IT 1306-06-5, Hydroxyapatite 1344-28-1, Aluminum oxide (Al₂O₃), biological studies 7631-86-9, Silica, biological studies 13463-67-7, Titania, biological studies 14808-60-7, Quartz, biological studies
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (curable dental compns. with antimicrobial properties)

IT 65-85-0D, Benzoic acid, esters 80-62-6 87-17-2D, Salicylanilide, halo derivs. 97-63-2, Ethyl methacrylate 97-86-9, Isobutyl methacrylate 97-88-1, Butyl methacrylate 101-84-8D, Diphenyl ether, halo derivs. 102-07-8D, Carbanilide, halo derivs. 108-95-2D, Phenol, derivs. 868-77-9 1565-94-2, Bis-GMA 2210-28-8, Propyl methacrylate 2455-24-5, Tetrahydrofurfuryl methacrylate 4655-34-9, Isopropyl methacrylate 5888-33-5 7534-94-3, Isobornyl methacrylate 9002-84-0 9002-88-4, Polyethylene 9003-01-4, Poly(acrylic acid) 9003-07-0, Polypropylene 9003-20-7, Polyvinyl acetate 9003-39-8, Pvp 9003-42-3, Poly(ethyl methacrylate) 9003-63-8, Poly(butyl methacrylate) 9011-14-7, Poly(methyl methacrylate) 9011-16-9, Maleic anhydridemethyl vinyl ether copolymer 20166-49-8 25087-26-7, Poly(methacrylic acid) 25685-29-4, Ethyl methacrylatemethyl methacrylate copolymer 25736-86-1, Polyethylene glycol monomethacrylate 27813-02-1, Hydroxypropyl methacrylate 29721-79-7, Hydroxybutyl methacrylate 41637-38-1, Ethoxylated bisphenol A dimethacrylate 45103-58-0, Methoxyethoxyethyl methacrylate 45127-97-7, 2-Propenoic acid, 2-methyl-, 2-(2-ethoxyethoxy)ethyl ester 72869-86-4, Urethane dimethacrylate
 RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (curable dental compns. with antimicrobial properties)

L49 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
 AN 1999:528989 HCAPLUS
 DN 131:149112
 TI Light-activated tooth whitening composition and method of using same
 IN Montgomery, Robert Eric; Nathoo, Salim A.; Cipolla, Anthony John
 PA Britesmile, Inc., USA
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61C003-00
 ICS A61C005-00; A61K007-16; A61K033-40
 CC 62-7 (Essential Oils and Cosmetics)
 Section cross-reference(s): 63
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9940870	A1	19990819	WO 1999-US3100	19990212	
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US	6162055	A	20001219	US 1999-234038	19990119	
AU	9927647	A1	19990830	AU 1999-27647	19990212	
EP	1054642	A1	20001129	EP 1999-908146	19990212	
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO	2000004046	A	20000925	NO 2000-4046	20000811
PRAI	US 1998-74708	P	19980213			

KATHLEEN FULLER EIC1700 308-4290

US 1998-75222 P 19980219
 US 1999-233793 A 19990119
 US 1999-234038 A 19990119
 WO 1999-US3100 W 19990212

AB The present invention provides a **tooth** whitening compn. having a transparent first component that is a carrier compd. and a transparent second component that is an oxidizing compd. which when applied to a stained **tooth** and exposed to actinic light is activated to facilitate **tooth** whitening. The invention also provides a method for light-activated **tooth** whitening which comprises applying a **tooth**-whitening compn. to one or more **teeth** and exposing the compn. to actinic light to activate the oxidizing compd. The present invention further provides a device for **tooth** whitening which has a light source, at least one optical output, a projection means for holding and positioning the optical output outside of a patient's mouth in a manner so as to provide approx. simultaneous and uniform illumination of a patient's front **teeth** by the optical output; and a connection means for connecting the light source to the optical output. The invention also provides methods of using the device. A transparent gel was prep'd. contg. distd. water 49.4, 1-hydroxyethylidene-1,1-diphosphonic acid 1, glycerin 5, hydrogen peroxide (35 %) 42.9, Carbopol 974P 1.7%, and ammonium hydroxide (29 %) q.s. to pH 5.5. Stained bovine enamel slabs were coated with a 1-2 mm film of the compn. and exposed to pulsed actinic radiation from an argon plasma arc light source.

ST light activated **tooth** whitening peroxide carboxypolymethylene

IT Dental materials and appliances

(devices equipped with light source and optical output; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Ketones, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(diketones; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Fiber optics

(fiber-optic instruments; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Optical instruments

(fiber-optic; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Bleaching

Dental materials and appliances

Photosensitizers (pharmaceutical)

Tooth

(light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Metallophthalocyanines

Peroxy acids

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(light-activated **tooth** whitening compns. contg.

carboxypolymethylene gel and oxidants and photoactivators)

IT Semiconductor materials

(particles; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Alkali metal oxides

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(peroxides; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT 95-14-7D, 1H-Benzotriazole, derivs. 119-61-9D, Benzophenone, derivs. 124-43-6, Carbamide peroxide 563-69-9D, Percarbonic acid, alkali metal

salts 2809-21-4, 1-Hydroxyethylidene-1,1-diphosphonic acid 7722-84-1, Hydrogen peroxide, biological studies 12674-33-8D, Perboric acid, alkali metal salts 151687-96-6, Carbopol 974p
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (light-activated tooth whitening compns. contg.
 carboxypolyethylene gel and oxidants and photoactivators)
 IT 1314-13-2, Zinc oxide, biological studies 13463-67-7, Titania, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (particles; light-activated tooth whitening compns. contg.
 carboxypolyethylene gel and oxidants and photoactivators)
 IT 50-78-2, Acetylsalicylic acid 102-76-1, Glycerol triacetate 10543-57-4
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (peroxyacid precursor; light-activated tooth whitening compns. contg. carboxypolyethylene gel and oxidants and photoactivators)

RE.CNT 15

RE

- (1) Ardiot; FR 2645734 A1 1990
- (2) Becker; US 4952143 A 1990
- (3) Benedict; US 4256730 A 1981 HCPLUS
- (4) Cheslak; US 4790752 A 1988
- (5) Cheslak; US 4790752 A 1988
- (6) Church; US 5279816 A 1994 HCPLUS
- (7) Friedman; US 4661070 A 1987
- (8) Montgomery; US 5816802 A 1998
- (9) Montgomery; WO 9804235 A1 1998 HCPLUS
- (10) Pellico; US 5718886 A 1998 HCPLUS
- (11) Prencipe; US 5256402 A 1993 HCPLUS
- (12) Rudy; US 4971782 A 1990 HCPLUS
- (13) Ultradent Products Inc; WO 9114650 A1 1991 HCPLUS
- (14) Viscio; US 5302375 A 1994 HCPLUS
- (15) Zaragoza, T; US 4983381 A 1991

L49 ANSWER 4 OF 12 HCPLUS COPYRIGHT 2001 ACS DUPLICATE 4

AN 1999:34366 HCPLUS

DN 130:100385

TI Effervescent two component bicarbonate and acid containing dentifrice

IN Masters, James; Cervino, Kim; Viscio, David; Kemp, James; Nathoo, Salim

PA Colgate-Palmolive Company, USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K007-16

ICS A61K007-20; A61K033-10

NCL 424049000

CC 62-7 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5855871	A	19990105	US 1997-909582	19970812
	WO 9907335	A1	19990218	WO 1998-US16380	19980806
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

KATHLEEN FULLER EIC1700 308-4290

US 1991-759244 A 19910913

AB The title **dentifrice** comprises Ca pyrophosphate or di-Ca phosphate dihydrate, metal-free peroxide, and a chelating agent. A compn. comprised urea peroxide 10.0, Ca pyrophosphate 27.5, di-Ca phosphate dihydrate 5.0, glycerol 5.045, PEG-600 10.0, Polyox N-10 5.0, Na lauryl sulfate 0.2, di-Na Ca EDTA 1.0, Simethicone 0.005, Na₂H₂P₂O₇ 2.0, Me salicylate 0.75, water 18.4, Pluronic F-127 15.0, and saccharin 0.1%.

ST **dentifrice** tooth whitening aq; calcium phosphate
dentifrice; pyrophosphate calcium **dentifrice**

IT **Dentifrices**
(tooth-whitening, aq.)

IT 62-33-9, Disodium calcium EDTA 124-43-6 7664-38-2, Phosphoric acid, miscellaneous 7722-84-1, Hydrogen peroxide, miscellaneous 7758-16-9 7789-77-7, Dicalcium phosphate dihydrate 7790-76-3, Calcium pyrophosphate
RL: BIOL (Biological study)
(**dentifrices** contg., tooth-whitening)

=> FILE HCAPLUS

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FILE COVERS 1947 - 30 May 2001 VOL 134 ISS 23
FILE LAST UPDATED: 29 May 2001 (20010529/ED)

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=> D QUE L63

L50	2 SEA FILE=REGISTRY ABB=ON HYDROGEN PEROXIDE/CN OR CARBAMIDE PEROXIDE/CN
L51	1 SEA FILE=REGISTRY ABB=ON GLYCERAL TRIACETATE/CN OR ACETYLSALICYLIC ACID/CN OR TETRAACETYLETHYLDIAMINE/CN
L52	385689 SEA FILE=HCAPLUS ABB=ON L50 OR H2O2 OR ?PEROX? OR ?PERCARBONAT? OR ?PERBOR?
L53	20054 SEA FILE=HCAPLUS ABB=ON L51 OR GLYCERAL(1W)?ACETATE OR ACETYLSALICYLIC ACID OR ACETYLAT?(3A)AMINO OR TETRAACETYL?
L54	2997 SEA FILE=HCAPLUS ABB=ON (L52 OR L53) AND (SEMICOND?(3A)PARTIC? OR ?BENZOPHENON? OR ?BENZOTRIAZOL? OR ?DIKETONE? OR METAL?(1A)LIGAND?(1A)COMPLEX? OR ?PHTHALOCYAN?(2A)COMPLEX?)
L55	10 SEA FILE=HCAPLUS ABB=ON L54 AND (PHOTO(W)ACTIV? OR PHOTOACT?)
L56	89 SEA FILE=HCAPLUS ABB=ON (CARBOXYPOLY? OR CARBOPOL? OR KATHLEEN FULLER EIC1700 308-4290

CARBOMER? OR CARBOXYVINYL?) AND (SEMICOND?(3A)PARTIC? OR
 ?BENZOPHENON? OR ?BENZOTRIAZOL? OR ?DIKETONE? OR METAL?(1A)LIGA
 ND?(1A)COMPLEX? OR ?PHTHALOCYAN?(2A)COMPLEX?)
 L57 7 SEA FILE=HCAPLUS ABB=ON L56 AND (BLEACH? OR WHIT? OR STAIN?(3A
)REMOV?)
 L58 131 SEA FILE=HCAPLUS ABB=ON L54 AND (BLEACH? OR WHIT? OR STAIN?(3A
)REMOV?)
 L59 3 SEA FILE=HCAPLUS ABB=ON L58 AND (DENT? OR TOOTH? OR TEETH?)
 L60 404557 SEA FILE=HCAPLUS ABB=ON (L52 OR L53)
 L61 1869 SEA FILE=HCAPLUS ABB=ON L60 AND (DENT? OR TOOTH? OR TEETH?)
 L62 27 SEA FILE=HCAPLUS ABB=ON (CARBOXYPOLY? OR CARBOPOL? OR
 CARBOMER? OR CARBOXYVINYL?) AND L61
 L63 44 SEA FILE=HCAPLUS ABB=ON L55 OR L57 OR L59 OR L62

=> FILE WPIX

FILE 'WPIX' ENTERED AT 16:24:11 ON 30 MAY 2001
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FILE LAST UPDATED: 28 MAY 2001 <20010528/UP>
 >>>UPDATE WEEKS:
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 DERWENT WEEK FOR POLYMER INDEXING: 200129
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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=> D QUE L64

L50 2 SEA FILE=REGISTRY ABB=ON HYDROGEN PEROXIDE/CN OR CARBAMIDE
 PEROXIDE/CN
 L51 1 SEA FILE=REGISTRY ABB=ON GLYCERAL TRIACETATE/CN OR ACETYLSALIC
 YLIC ACID/CN OR TETRAACETYLETHYLDIAMINE/CN
 L52 385689 SEA FILE=HCAPLUS ABB=ON L50 OR H2O2 OR ?PEROX? OR ?PERCARBONAT
 ? OR ?PERBOR?
 L53 20054 SEA FILE=HCAPLUS ABB=ON L51 OR GLYCERAL(1W)?ACETATE OR
 ACETYLSALICYLIC ACID OR ACETYLAT?(3A)AMINO OR TETRAACETYL?
 L54 2997 SEA FILE=HCAPLUS ABB=ON (L52 OR L53) AND (SEMICOND?(3A)PARTIC?
 OR ?BENZOPHENON? OR ?BENZOTRIAZOL? OR ?DIKETONE? OR METAL?(1A)
 LIGAND?(1A)COMPLEX? OR ?PHTHALOCYAN?(2A)COMPLEX?)
 L55 10 SEA FILE=HCAPLUS ABB=ON L54 AND (PHOTO(W)ACTIV? OR PHOTOACT?)
 L56 89 SEA FILE=HCAPLUS ABB=ON (CARBOXYPOLY? OR CARBOPOL? OR
 CARBOMER? OR CARBOXYVINYL?) AND (SEMICOND?(3A)PARTIC? OR
 ?BENZOPHENON? OR ?BENZOTRIAZOL? OR ?DIKETONE? OR METAL?(1A)LIGA
 ND?(1A)COMPLEX? OR ?PHTHALOCYAN?(2A)COMPLEX?)
 L57 7 SEA FILE=HCAPLUS ABB=ON L56 AND (BLEACH? OR WHIT? OR STAIN?(3A
)REMOV?)
 L58 131 SEA FILE=HCAPLUS ABB=ON L54 AND (BLEACH? OR WHIT? OR STAIN?(3A
)REMOV?)
 L59 3 SEA FILE=HCAPLUS ABB=ON L58 AND (DENT? OR TOOTH? OR TEETH?)
 L60 404557 SEA FILE=HCAPLUS ABB=ON (L52 OR L53)

KATHLEEN FULLER EIC1700 308-4290

L61 1869 SEA FILE=HCAPLUS ABB=ON L60 AND (DENT? OR TOOTH? OR TEETH?)
 L62 27 SEA FILE=HCAPLUS ABB=ON (CARBOXYPOLY? OR CARBOPOL? OR
 CARBOMER? OR CARBOXYVINYL?) AND L61
 L64 29 SEA FILE=WPIX ABB=ON L55 OR L57 OR L59 OR L62

=> DUP REM L63 L64

FILE 'HCAPLUS' ENTERED AT 16:24:27 ON 30 MAY 2001
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 COPYRIGHT (C) 2001 DERWENT INFORMATION LTD
 PROCESSING COMPLETED FOR L63
 PROCESSING COMPLETED FOR L64
 L65 62 DUP REM L63 L64 (11 DUPLICATES REMOVED)

=> D L65 ALL 1-62 HITSTR.



L65 ANSWER 1 OF 62 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 2001-235100 [24] WPIX
 CR 2000-106076 [07]; 2000-256633 [20]; 2000-292529 [20]; 2001-006813 [01];
 2001-015654 [02]; 2001-235101 [20]; 2001-244399 [25]; 2001-273335 [28]
 DNC C2001-070463
 TI Bleaching system for bleaching fabrics, comprises atmospheric oxygen and a ligand which forms a complex with transition metal, in an aqueous medium.
 DC D25 E11 E12
 IN CARINA, R F; FOX, S P; KALMEIJER, R E; KARLIN, K D; THIJSSEN, R; TWISKER, R S
 PA (HIND-N) HINDUSTAN LEVER LTD; (UNIL) UNILEVER NV; (UNIL) UNILEVER PLC
 CYC 93
 PI WO 2001016261 A2 20010308 (200124)* EN 48p C11D000-00
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
 NL OA PT SD SE SL SZ TZ UG ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
 DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
 LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
 SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
 ADT WO 2001016261 A2 WO 2000-EP8078 20000816
 PRAI GB 2000-6961 20000322; WO 1999-GB2876 19990901; WO 1999-GB2878
 19990901
 IC ICM C11D000-00
 AB WO 2001016261 A UPAB: 20010522
 NOVELTY - Providing a bleaching system based on atmospheric oxygen or air that does not rely primarily on hydrogen peroxide or a hydroperoxyl generating system, and that does not require the presence of organic components such as aldehydes that are consumed in the process.
 DETAILED DESCRIPTION - A bleaching composition comprises in an aqueous medium, atmospheric oxygen and a ligand of formula $(MaLkXn)^{Ym}$ (AI) which forms a complex with a transition metal, the metal catalyzing bleaching of a substrate by the atmospheric oxygen, the aqueous medium is substantially devoid of peroxygen bleach or a peroxy-based or -generating bleach system.
 M = metal selected from Mn(II) - (III) - (IV) - (V), Cu(I) - (II) - (III), Fe(II) - (III) - (VI) - (V), Co(I) - (II) - (III), Ti(II) - (III) - (IV), V(II) - (III) - (IV) - (V), Mo(II) - (III) - (IV) - (V) - (VI) and W (IV) - (V) - (VI);
 X = coordinating species selected from mono-, bi- or tri- charged anions and any neutral molecules able to coordinate the metal in a mono-,

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RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);
 BIOL (Biological study); USES (Uses)
 (compn. for bleaching **teeth**)

IT 14915-07-2, **Peroxide**

RL: BUU (Biological use, unclassified); MOA (Modifier or additive use);
 BIOL (Biological study); USES (Uses)
 (derivs.; compn. for bleaching **teeth**)

L65 ANSWER 13 OF 62 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
 AN 1999:528989 HCAPLUS

DN 131:149112

TI Light-activated **tooth whitening** composition and method
 of using same

IN Montgomery, Robert Eric; Nathoo, Salim A.; Cipolla, Anthony John

PA Britesmile, Inc., USA

SO PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61C003-00

ICS A61C005-00; A61K007-16; A61K033-40

CC 62-7 (Essential Oils and Cosmetics)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940870	A1	19990819	WO 1999-US3100	19990212
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6162055	A	20001219	US 1999-234038	19990119
	AU 9927647	A1	19990830	AU 1999-27647	19990212
	EP 1054642	A1	20001129	EP 1999-908146	19990212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	NO 2000004046	A	20000925	NO 2000-4046	20000811
PRAI	US 1998-74708	P	19980213		
	US 1998-75222	P	19980219		
	US 1999-233793	A	19990119		
	US 1999-234038	A	19990119		
	WO 1999-US3100	W	19990212		

AB The present invention provides a **tooth whitening** compn. having a transparent first component that is a carrier compd. and a transparent second component that is an oxidizing compd. which when applied to a stained **tooth** and exposed to actinic light is activated to facilitate **tooth whitening**. The invention also provides a method for light-activated **tooth whitening** which comprises applying a **tooth whitening** compn. to one or more **teeth** and exposing the compn. to actinic light to activate the oxidizing compd. The present invention further provides a device for **tooth whitening** which has a light source, at least one optical output, a projection means for holding and positioning the optical output outside of a patient's mouth in a manner so as to provide approx. simultaneous and uniform illumination of a patient's front **teeth** by the optical output; and a connection means for connecting the light source to the optical output. The invention also provides methods of using the device. A transparent gel was prep'd. contg. distd. water 49.4, 1-hydroxyethylidene-1,1-diphosphonic acid 1, glycerin 5, hydrogen **peroxide** (35 %)

KATHLEEN FULLER EIC1700 308-4290

- 42.9, **Carbopol** 974P 1.7%, and ammonium hydroxide (29 %) q.s. to pH 5.5. Stained bovine enamel slabs were coated with a 1-2 mm film of the compn. and exposed to pulsed actinic radiation from an argon plasma arc light source.
- ST light activated tooth whitening peroxide
carboxypolyethylene
- IT Dental materials and appliances
 (devices equipped with light source and optical output; light-activated tooth whitening compns. contg.
carboxypolyethylene gel and oxidants and photoactivators)
- IT Ketones, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (diketones; light-activated tooth whitening compns. contg. **carboxypolyethylene** gel and oxidants and photoactivators)
- IT Fiber optics
 (fiber-optic instruments; light-activated tooth whitening compns. contg. **carboxypolyethylene** gel and oxidants and photoactivators)
- IT Optical instruments
 (fiber-optic; light-activated tooth whitening compns. contg. **carboxypolyethylene** gel and oxidants and photoactivators)
- IT Bleaching
 Dental materials and appliances
 Photosensitizers (pharmaceutical)
 Tooth
 (light-activated tooth whitening compns. contg.
carboxypolyethylene gel and oxidants and photoactivators)
- IT Metallophthalocyanines
Peroxy acids
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (light-activated tooth whitening compns. contg.
carboxypolyethylene gel and oxidants and photoactivators)
- IT Semiconductor materials
 (particles; light-activated tooth whitening compns. contg. **carboxypolyethylene** gel and oxidants and photoactivators)
- IT Alkali metal oxides
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (peroxides; light-activated tooth whitening compns. contg. **carboxypolyethylene** gel and oxidants and photoactivators)
- IT 95-14-7D, 1H-Benzotriazole, derivs. 119-61-9D,
Benzophenone, derivs. 124-43-6, Carbamide peroxide 563-69-9D, Percarbonic acid, alkali metal salts 2809-21-4, 1-Hydroxyethylidene-1,1-diphosphonic acid 7722-84-1, Hydrogen peroxide, biological studies 12674-33-8D, **Perboric** acid, alkali metal salts 151687-96-6, **Carbopol** 974p
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (light-activated tooth whitening compns. contg.
carboxypolyethylene gel and oxidants and photoactivators)
- IT 1314-13-2, Zinc oxide, biological studies 13463-67-7, Titania, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
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(Uses)

(particles; light-activated tooth whitening compns.
contg. carboxypolyethylene gel and oxidants and
photoactivators)

IT 50-78-2, Acetylsalicylic acid 102-76-1,
Glycerol triacetate 10543-57-4
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(peroxyacid precursor; light-activated tooth
whitening compns. contg. carboxypolyethylene gel and
oxidants and photoactivators)

RE.CNT 15

RE

- (1) Ardiot; FR 2645734 A1 1990
- (2) Becker; US 4952143 A 1990
- (3) Benedict; US 4256730 A 1981 HCPLUS
- (4) Cheslak; US 4790752 A 1988
- (5) Cheslak; US 4790752 A 1988
- (6) Church; US 5279816 A 1994 HCPLUS
- (7) Friedman; US 4661070 A 1987
- (8) Montgomery; US 5816802 A 1998
- (9) Montgomery; WO 9804235 A1 1998 HCPLUS
- (10) Pellico; US 5718886 A 1998 HCPLUS
- (11) Prencipe; US 5256402 A 1993 HCPLUS
- (12) Rudy; US 4971782 A 1990 HCPLUS
- (13) Ultradent Products Inc; WO 9114650 A1 1991 HCPLUS
- (14) Viscio; US 5302375 A 1994 HCPLUS
- (15) Zaragoza, T; US 4983381 A 1991

IT 124-43-6, Carbamide peroxide 7722-84-1,

Hydrogen peroxide, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(light-activated tooth whitening compns. contg.
carboxypolyethylene gel and oxidants and
photoactivators)

RN 124-43-6 HCPLUS

CN Urea, compd. with hydrogen peroxide (H₂O₂) (1:1) (9CI) (CA INDEX NAME)

CM 1

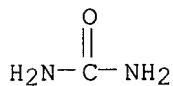
CRN 7722-84-1

CMF H₂ O₂

HO--OH

CM 2

CRN 57-13-6

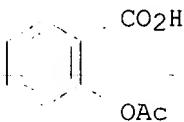
CMF C H₄ N₂ O

RN 7722-84-1 HCPLUS

CN Hydrogen peroxide (H₂O₂) (9CI) (CA INDEX NAME)

HO-OH

IT 50-78-2, Acetylsalicylic acid
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (peroxyacid precursor; light-activated tooth
 whitening compns. contg. carboxypolyethylene gel and
 oxidants and photoactivators)
 RN 50-78-2 HCPLUS
 CN Benzoic acid, 2-(acetoxy)- (9CI) (CA INDEX NAME)



L65 ANSWER 14 OF 62 HCPLUS COPYRIGHT 2001 ACS DUPLICATE 3
 AN 1999:732952 HCPLUS
 DN 131:342068
 TI Sticky dental compositions for adhering a passive-type
 dental tray over a person's teeth
 IN Fischer, Dan E.
 PA Ultradent Products, Inc., USA
 SO U.S., 17 pp., Cont.-in-part of U.S. 5,851,512.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM A61K007-16
 ICS A61C005-00
 NCL 424049000
 CC 63-7 (Pharmaceuticals)
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5985249	A	19991116	US 1997-949892	19971014
	US 5770182	A	19980623	US 1995-378315	19950125
	US 5759037	A	19980602	US 1996-721008	19960926
	US 5759038	A	19980602	US 1996-721048	19960926
	US 5725843	A	19980310	US 1996-722549	19960927
	US 5770105	A	19980623	US 1996-722397	19960930
	JP 09224962	A2	19970902	JP 1997-39346	19970224
	JP 2909040	B2	19990623		
	JP 09224963	A2	19970902	JP 1997-39364	19970224
	JP 2909041	B2	19990623		
	US 5851512	A	19981222	US 1997-865910	19970530
PRAI	US 1990-497934	B3	19900322		
	US 1991-718210	B1	19910620		
	US 1992-985700	B1	19921202		
	US 1993-99247	B1	19930728		
	US 1995-378315	A1	19950125		
	US 1996-722549	A2	19960927		
	US 1997-865910	A2	19970530		
	US 1990-553168	A	19900713		
	JP 1991-508298	A3	19910318		

AB The present invention relates to sticky dental compns. which include a sticky, glue-like matrix material for treating a variety of tooth or gum ailments, and methods for treating teeth using such compns. For max. comfort, an improved dental tray that is thin-walled, flexible and light wt. is used to hold the sticky

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copolymer 204196-72-5P 204196-73-6P, Acrylic acid-docosyl acrylate-Desmophen 1150-Isonate 143L copolymer 204196-74-7P
 204196-75-8P, Acrylic acid-docosanyl acrylate-Desmophen 800-Desmodur N100 copolymer 204196-76-9P, Aropol 2036-acrylic acid-docosyl acrylate copolymer 204196-77-0P, Acrylic acid-docosyl acrylate-bisphenol A-epichlorohydrin copolymer 204395-50-6P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polymer compns. contg. a modifying agent and manuf. thereof)

IT 108-31-6DP, 2,5-Furandione, reaction products with docosanyl acrylate-Me methacrylate copolymer 141-43-5DP, reaction products with maleic anhydride-éthylené copolymer 76584-99-1P, Acrylic acid-methyl methacrylate-octadecyl acrylate copolymer 182688-76-2P, Docosyl acrylate-2-(dimethylamino)ethyl acrylate copolymer 182688-83-1P, Acrylic acid-docosyl acrylate copolymer 204196-78-1P, 2-Hydroxyethyl acrylate-methyl methacrylate-octadecyl acrylate copolymer 204196-79-2DP, Docosyl acrylate-methyl methacrylate copolymer, maleated 204196-81-6P, Docosyl acrylate-1-vinylimidazole copolymer 204196-82-7P, 3,4-Epoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate-docosyl acrylate-1-vinylimidazole copolymer 204336-87-8DP, Petrolite 8040, reaction products with ethanolamine
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation)
 (polymer compns. contg. a modifying agent and manuf. thereof)

IT 25154-52-3, Nonylphenol 26590-20-5, Methyltetrahydrophthalic anhydride 27176-87-0, Dodecylbenzenesulfonic acid 51000-79-4, Pentadecylphenol
 RL: MOA (Modifier or additive use); USES (Uses)
 (polymer compns. contg. a modifying agent and manuf. thereof)

L65 ANSWER 24 OF 62 HCPLUS COPYRIGHT 2001 ACS
 AN 1998:388401 HCPLUS
 DN 129:69149
 TI Storage-stable machine dishwashing gel
 IN Nicholson, John Richard; Piatek, Bozena Marianna
 PA Unilever N.V., Neth.; Unilever Plc
 SO Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C11D017-00
 ICS C11D003-39; C11D003-28; C11D003-12
 CC 46-6 (Surface Active Agents and Detergents)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 846757	A2	19980610	EP 1997-203470	19971111
	EP 846757	A3	19991124		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2221955	AA	19980605	CA 1997-2221955	19971124
PRAI	US 1996-760850		19961205		
AB	A detergent gel compn. which delivers high performance cleaning and does not discolor in storage contains 0.001-5% of an inorg. compd., e.g., <u>TiO₂</u> , 1-75% of a builder material, an effective amt. of an O bleaching agent, e.g., a peroxy acid, and 0.01-2.0% of an azole compd., specifically benzotriazole as antitarnish agent.				
ST	dishwashing gel storage stability titanium dioxide; peroxy acid dishwashing gel storage stability; benzotriazole antitarnish dishwashing gel storage stability				
IT	Dishwashing detergents (gels; storage-stable machine dishwashing gel contg. oxygen bleach , surfactant, titanium dioxide and azole compds. as antitarnish agent)				
IT	Carboxylic acids, uses				

IT RL: MOA (Modifier or additive use); USES (Uses)
 (peroxy, **bleaching** agents; storage-stable machine dishwashing
 gel contg. oxygen **bleach**, surfactant, titanium dioxide and
 azole compds. as antitarnish agent)

IT **Bleaching** agents
 (peroxy; storage-stable machine dishwashing gel contg. oxygen
bleach, surfactant, titanium dioxide and azole compds. as
 antitarnish agent)

IT Tarnishing
 (prevention, agents; storage-stable machine dishwashing gel contg.
 oxygen **bleach**, surfactant, titanium dioxide and azole compds.
 as antitarnish agent)

IT Nonionic surfactants
 (storage-stable machine dishwashing gel contg. oxygen **bleach**,
 surfactant, titanium dioxide and azole compds. as antitarnish agent)

IT Stabilizing agents
 (titanium dioxide; storage-stable machine dishwashing gel contg. oxygen
bleach, surfactant, titanium dioxide and azole compds. as
 antitarnish agent)

IT 128275-31-0, Phthalimidoperhexanoic acid
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**bleach**, wax-encapsulated; storage-stable machine dishwashing
 gel contg. oxygen **bleach**, surfactant, titanium dioxide and
 azole compds. as antitarnish agent)

IT 133725-71-0
 RL: MOA (Modifier or additive use); USES (Uses)
 (**bleach**; storage-stable machine dishwashing gel contg. oxygen
bleach, surfactant, titanium dioxide and azole compds. as
 antitarnish agent)

IT 994-36-5, Sodium citrate 1330-43-4, Sodium tetraborate 60472-42-6,
 Sokalan CP7
 RL: MOA (Modifier or additive use); USES (Uses)
 (builder; storage-stable machine dishwashing gel contg. oxygen
bleach, surfactant, titanium dioxide and azole compds. as
 antitarnish agent)

IT 13463-67-7, Titanium dioxide, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (stabilizer; storage-stable machine dishwashing gel contg. oxygen
bleach, surfactant, titanium dioxide and azole compds. as
 antitarnish agent)

IT 95-14-7, 1H-Benzotriazole 135976-51-1, Carbopol 627
 RL: MOA (Modifier or additive use); USES (Uses)
 (storage-stable machine dishwashing gel contg. oxygen **bleach**,
 surfactant, titanium dioxide and azole compds. as antitarnish agent)

IT 131594-92-8, Plurafac LF 403
 RL: TEM (Technical or engineered material use); USES (Uses)
 (surfactant; storage-stable machine dishwashing gel contg. oxygen
bleach, surfactant, titanium dioxide and azole compds. as
 antitarnish agent)

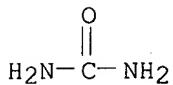
L65 ANSWER 25 OF 62 HCAPLUS COPYRIGHT 2001 ACS
 AN 2000:371829 HCAPLUS
 DN 132:339091
 TI Household tooth whitening gel
 IN Guan, Zemin; Zhao, Chengyan; Geng, Jianhua; Liu, Xinjian
 PA Peop. Rep. China
 SO Faming Zhanli Shenqing Gongkai Shuomingshu, 5 pp.
 CODEN: CNXXEV
 DT Patent
 LA Chinese
 IC ICM A61K007-20
 CC 62-7 (Essential Oils and Cosmetics)
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE
 KATHLEEN FULLER EIC1700 308-4290

CRN 7722-84-1
CMF H₂ O₂

HO—OH

CM 2

CRN 57-13-6
CMF C H₄ N₂ O



L65 ANSWER 29 OF 62 HCPLUS COPYRIGHT 2001 ACS
 AN 1998:31385 HCPLUS
 DN 128:76852
 TI Metal complex catalysts for oxidative **bleaching** in laundry
 IN Hermant, Roelant Mathijs; Jong, Bas A. M. J.
 PA Unilever N.V., Neth.; Unilever PLC
 SO PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C11D003-39
 ICS B01J031-18; C07F015-02; C07F013-00
 CC 46-5 (Surface Active Agents and Detergents)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9748787	A1	19971224	WO 1997-EP2322	19970429
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2257891	AA	19971224	CA 1997-2257891	19970429
AU 9728928	A1	19980107	AU 1997-28928	19970429
EP 906402	A1	19990407	EP 1997-922991	19970429
R: DE, ES, FR, GB, IT				
BR 9709798	A	19990810	BR 1997-9798	19970429
ZA 9705068	A	19981209	ZA 1997-5068	19970609
US 6022490	A	20000208	US 1997-878742	19970619
PRAI EP 1996-201702		19960619		
WO 1997-EP2322		19970429		
AB	A bleach and oxidn. catalyst is provided comprising a catalytically active metal complex having a poly- dentate ligand contg. at least 6 hetero atoms. Such metal complexes can activate hydrogen peroxide , peroxy acids or mol. oxygen and were found to have both favorable stain removal and remarkable dye transfer inhibition properties. A typical complex was manufd. by reaction of 2-picolyl chloride with ethylenediamine, and complexation of the ligand with Fe(ClO ₄) ₂ .6H ₂ O.			
ST	laundry bleach oxidative catalyst metal complex; iron chloropicoline ethylenediamine complex bleach catalyst			

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IT **Bleaching**
 Oxidation catalysts
 (metal complex catalysts for oxidative **bleaching** in laundry)

IT **Peroxy acids**
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (metal complex catalysts for oxidative **bleaching** in laundry)

IT 107-15-3, 1,2-Ethanediamine, reactions 4377-33-7, 2-Picolyl chloride
 4741-99-5, N,N'-Bis(2-aminoethyl)-1,3-propanediamine
 RL: RCT (Reactant)
 (ligand precursor; metal complex
 catalysts for oxidative **bleaching** in laundry)

IT 16858-02-9P 200719-69-3P, 1,1,4,8,11,11-Hexakis(pyridin-2-ylmethyl)-
 1,4,8,11-tetraazaundecane
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation)
 (ligand; metal complex catalysts for
 oxidative **bleaching** in laundry)

IT 61920-87-4P 200720-72-5P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (metal complex catalysts for oxidative **bleaching** in laundry)

IT 7722-84-1, Hydrogen **peroxide** (H₂O₂), processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (metal complex catalysts for oxidative **bleaching** in laundry)

IT 7722-84-1, Hydrogen **peroxide** (H₂O₂), processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (metal complex catalysts for oxidative **bleaching** in laundry)

RN 7722-84-1 HCPLUS
 CN Hydrogen peroxide (H₂O₂) (9CI) (CA INDEX NAME)

HO—OH

L65 ANSWER 30 OF 62 HCPLUS COPYRIGHT 2001 ACS
 AN 1997:640705 HCPLUS
 DN 127:278601
 TI **Photoactivatable** chain transfer reagents, manufacture of semitelechelic polymers having at least one terminal **photoactivatable** groups using these reagents, and use of these polymers to modified surfaces of plastics
 IN Swanson, Melvin J.; Amos, Richard A.; Swan, Dale G.; Opperman, Gary W.
 PA BSI Corp., USA
 SO PCT Int. Appl., 68 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C08F002-50
 ICS C08F004-00; C08J003-28
 CC 35-4 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 38, 74
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9734935	A1	19970925	WO 1997-US5344	19970320
	W: AU, CA, JP, MX				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5942555	A	19990824	US 1996-619303	19960321
	CA 2249287	AA	19970925	CA 1997-2249287	19970320
	AU 9724310	A1	19971010	AU 1997-24310	19970320
	EP 888389	A1	19990107	EP 1997-920012	19970320
	R: DE, ES, FR, GB, IT				
	JP 2000508003	T2	20000627	JP 1997-533803	19970320
PRAI	US 1996-619303	A	19960321		

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RL: MSC (Miscellaneous)
 (plates; **photoactivatable** chain transfer reagents for manuf.
 of semitelechelic polymers for modification of surfaces of plastics)

IT 26628-22-8, Sodium azide
 RL: RCT (Reactant)
 (polymer derivatization agent precursor; **photoactivatable**
 chain transfer reagents for manuf. of semitelechelic polymers for
 modification of surfaces of plastics)

IT 196492-12-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation)
 (polymer derivatization agent; **photoactivatable** chain
 transfer reagents for manuf. of semitelechelic polymers for
 modification of surfaces of plastics)

L65 ANSWER 31 OF 62 HCAPLUS COPYRIGHT 2001 ACS
 AN 1997:594802 HCAPLUS
 DN 127:249741
 TI Machine dishwashing gel compositions with good viscosity and thixotropic profiles and detergency
 IN Secemski, Isaac Israel; Nicholson, John Richard; Piatek, Bozena Marianna;
 Tomlinson, Alan Digby
 PA Unilever N.V., Neth.; Unilever PLC
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C11D003-28
 ICS C11D003-37; C11D003-39
 CC 46-5 (Surface Active Agents and Detergents)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9731996	A1	19970904	WO 1997-EP687	19970213
			W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG	
CA 2242324	AA	19970904	CA 1997-2242324	19970213
AU 9718732	A1	19970916	AU 1997-18732	19970213
EP 883670	A1	19981216	EP 1997-905022	19970213
	R: DE, ES, FR, GB, IT			
BR 9707729	A	19990727	BR 1997-7729	19970213
ZA 9701530	A	19980921	ZA 1997-1530	19970221
PRAI US 1996-608833		19960229		
WO 1997-EP687		19970213		
AB	The compn. having good storage stability contains 10-50% a builder material, an effective amt. of an oxygen bleaching agent, 0.2-2.0% a dual component structuring system consisting of a crosslinked polyacrylate structurant and an azole co-structurant provided that the total amt. of the builder and the structurant does not exceed 60 as calcd. by the formula: wt.% of builder x wt.% of the structurant .ltoreq. 60. Thus, a such compn. was prep'd. from a mixt. of Na citrate and Sokalan CP7, Carbopol 627 (a high-mol. wt. crosslinked polyacrylate), glycerol/borax stabilizer, enzymes, Plurafac LF 403 (surfactant), O bleach encapsulates, benzotriazole and water.			
ST	dishwasher detergent gel storage stability; oxygen bleach dishwashing detergent gel; structurant polyacrylate dishwashing detergent gel; azole structurant polyacrylate dishwashing detergent; benzotriazole structurant dishwashing detergent gel			
IT	Polyphosphoric acids			

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (alkali metal salts, builder; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT Bleaching agents
 Detergent builders
 Dishwashing detergents
 (machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT Carboxylic acids, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (peroxy, **bleach**; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT Thickening agents
 (structurant; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 133725-71-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**bleach**; in machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 93-59-4, Peroxybenzoic acid 104788-63-8 111875-82-2 128275-31-0,
 .epsilon.-Phthalimidoperoxyhexanoic acid 162461-43-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (**bleach**; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 13845-36-8, Potassium tripolyphosphate
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (builder; in machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 68-04-2, Sodium citrate 7758-29-4, Sodium tripolyphosphate 60472-42-6,
 Sokalan CP7
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (builder; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 95-14-7, 1H-Benzotriazole
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (co-structurant; in machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 135976-51-1, Carbopol 627
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (structurant; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

IT 131594-92-8, Plurafac LF403
 RL: TEM (Technical or engineered material use); USES (Uses)
 (surfactant; machine dishwashing gel compns. with good viscosity and thixotropic profiles and detergency)

L65 ANSWER 32 OF 62 HCPLUS COPYRIGHT 2001 ACS

AN 1997:332433 HCPLUS

DN 126:308649

TI Tooth bleaching compositions containing hydrogen peroxide

IN Montgomery, Robert Eric

PA Montgomery, Robert Eric, USA

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-20

ICS A61K007-00

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9711676	A1	19970403	WO 1996-US15366	19960925
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA			
	CA 2238764	AA	19970403	CA 1996-2238764	19960925
	AU 9672455	A1	19970417	AU 1996-72455	19960925
	EP 862408	A1	19980909	EP 1996-933896	19960925
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
	US 5922307	A	19990713	US 1996-719569	19960925
PRAI	US 1995-4258		19950925		
	WO 1996-US15366		19960925		
AB	Hydrogen peroxide -contg. compns. that are maintained at a substantially const. pH range of 6.0-10.0 during the tooth -bleaching procedure in the presence of a calcium chelating agent are claimed. A stable tooth -bleaching formulation contained water 86.41, 1-hydroxyethylidene-1,1-diphosphonic acid 0.02, sodium stannate trihydrate 0.02, 35% hydrogen peroxide 10.30, Carbopol 974P 2.5%, and sodium hydroxide q.s. pH = 7.0.				
ST	tooth bleaching compn hydrogen peroxide				
IT	Diphosphates				
	Polyphosphates				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (alkali metal salts; tooth bleaching compns. contg. hydrogen peroxide)				
IT	Chelating agents				
	Dentifrices				
	Stabilizing agents				
	Thickening agents				
	(tooth bleaching compns. contg. hydrogen peroxide)				
IT	563-69-9, Carbonoperoxooic acid				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (salts; tooth bleaching compns. contg. hydrogen peroxide)				
IT	60-00-4, Edta, biological studies 62-33-9, Calcium disodium edta 77-92-9, Citric acid, biological studies 77-92-9D, Citric acid, salts 124-43-6, Carbamide peroxide 526-95-4, Gluconic acid 526-95-4D, Gluconic acid, salts 2809-21-4, 1-Hydroxyethylidene-1,1-diphosphonic acid 4452-58-8, Sodium percarbonate 7722-84-1, Hydrogen peroxide , biological studies 7758-16-9 36411-33-3				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (tooth bleaching compns. contg. hydrogen peroxide)				
IT	124-43-6, Carbamide peroxide 7722-84-1, Hydrogen peroxide , biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (tooth bleaching compns. contg. hydrogen peroxide)				
RN	124-43-6 HCPLUS				
CN	Urea, compd. with hydrogen peroxide (H ₂ O ₂) (1:1) (9CI) (CA INDEX NAME)				

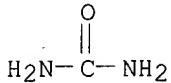
CM 1

CRN 7722-84-1
CMF H₂O₂

HO—OH

CM 2

CRN 57-13-6
CMF C H₄ N₂ O



RN 7722-84-1 HCPLUS
CN Hydrogen peroxide (H₂O₂) (9CI) (CA INDEX NAME)

HO—OH

L65 ANSWER 33 OF 62 HCPLUS COPYRIGHT 2001 ACS
AN 1997:257483 HCPLUS
DN 126:242633
TI Peroxidase-activating oral care compositions
IN Montgomery, Robert Eric
PA Montgomery, Robert Eric, USA
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-20
CC 62-7 (Essential Oils and Cosmetics)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9707777	A1	19970306	WO 1996-US13240	19960815
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA
	AU 9667254	A1	19970319	AU 1996-67254	19960815
	US 5908614	A	19990601	US 1996-698474	19960815
PRAI	US 1995-2361		19950815		
	US 1996-12537		19960229		
	WO 1996-US13240		19960815		
AB	An oral care compn. includes a nonenzymic water-sol. H ₂ O ₂ precursor (e.g. an alkali metal percarbonate) which releases H ₂ O ₂ upon contact with water to activate the peroxidase system in the oral cavity. The compn. further contains a pH-adjusting agent to produce a selected pH that facilitates the rapid release of H ₂ O ₂ from the precursor. Thus, an oral gel contained glycerin 93.45, Carbolpol 980 2.00, carbamide peroxide 0.05, distd. water 3.00, and Tris buffer 1.50 g.				
ST	peroxide precursor dentifrice; peroxidase				

KATHLEEN FULLER EIC1700 308-4290

IT activation mouth **dentifrice**
 IT Alkali metal hydroxides
 IT Amines, biological studies
 IT Organic acids
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (buffers; **peroxidase**-activating oral care compns.)
 IT **Dentifrices**
 (dental floss; **peroxidase**-activating oral care compns.)
 IT **Dentifrices**
 (gels; **peroxidase**-activating oral care compns.)
 IT Drug delivery systems
 (lozenges; **peroxidase**-activating oral care compns.)
 IT Mouth
 (**peroxidase** activation in; **peroxidase**-activating oral care compns.)
 IT Buffers
 Chewing gum
 IT **Dentifrices**
 (**peroxidase**-activating oral care compns.)
 IT Ammonium polyphosphates
 Halides
 IT **Peroxides**, biological studies
 Sodium polyphosphates
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (**peroxidase**-activating oral care compns.)
 IT Polyphosphoric acids
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (potassium salts; **peroxidase**-activating oral care compns.)
 IT Hide
 (raw-, animal chews; **peroxidase**-activating oral care compns.)
 IT 9003-99-0, **Peroxidase**
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
 (activation of; **peroxidase**-activating oral care compns.)
 IT 64-19-7, Acetic acid, biological studies 1336-21-6, Ammonium hydroxide
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (buffer; **peroxidase**-activating oral care compns.)
 IT 7664-38-2D, Phosphoric acid, alkali metal salts
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (buffers; **peroxidase**-activating oral care compns.)
 IT 68-04-2 77-86-1, Tris(hydroxymethyl)aminomethane 77-92-9, Citric acid,
 biological studies 102-71-6, Triethanolamine, biological studies
 107-92-6, Butyric acid, biological studies 110-94-1, Glutaric acid
 124-04-9, Adipic acid, biological studies 124-43-6, Carbamide
peroxide 127-08-2, Potassium acetate 127-09-3, Sodium acetate
 141-82-2, Malonic acid, biological studies 141-95-7, Sodium malonate
 156-54-7, Sodium butyrate 299-27-4, Potassium gluconate 333-20-0,
 Potassium thiocyanate 463-56-9D, Thiocyanic acid, salts 526-95-4,
 Gluconic acid 527-07-1, Sodium gluconate 540-72-7, Sodium thiocyanate
 563-69-9D, Percarbonic acid, alkali metal salts 585-09-1, Potassium
 malate 589-39-9, Potassium butyrate 631-61-8, Ammonium acetate
 676-46-0, Sodium malate 866-84-2 1310-58-3, Potassium hydroxide,
 biological studies 1310-73-2, Sodium hydroxide, biological studies
 3458-72-8 6283-27-8, Ammonium malate 6915-15-7, Malic acid
 7320-34-5, Potassium pyrophosphate 7486-38-6 7632-05-5
7722-84-1D, Hydrogen **peroxide**, precursors 7722-88-5
 10124-31-9 12674-33-8D, **Perboric** acid, alkali metal salts
 13095-67-5, Potassium malonate 13521-83-0 13765-35-0 14287-04-8,
 Ammonium butyrate 15630-89-4 16068-46-5 16887-00-6, Chloride,

biological studies 18815-40-2, Ammonium malonate 19090-60-9, Ammonium adipate 19147-16-1 19222-41-4, Ammonium gluconate 20461-54-5, Iodide, biological studies 24959-67-9, Bromide, biological studies 29750-34-3, Ammonium glutarate 39649-90-6, Potassium glutarate
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(peroxidase-activating oral care compns.)

IT 63296-34-4P, Hypothiocyanite
 RL: PNU (Preparation, unclassified); PREP (Preparation)

(peroxidase-activating oral care compns.)

IT 124-43-6, Carbamide peroxide 7722-84-1D,
 Hydrogen peroxide, precursors
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(peroxidase-activating oral care compns.)

RN 124-43-6 HCPLUS

CN Urea, compd. with hydrogen peroxide (H₂O₂) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 7722-84-1

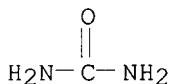
CMF H₂ O₂

HO—OH

CM 2

CRN 57-13-6

CMF C H₄ N₂ O



RN 7722-84-1 HCPLUS

CN Hydrogen peroxide (H₂O₂) (9CI) (CA INDEX NAME)

HO—OH

L65 ANSWER 34 OF 62 HCPLUS COPYRIGHT 2001 ACS

AN 1997:540271 HCPLUS

DN 127:140227

TI Oral care compositions containing peptides with anti-adherence activity
 IN Charbonneau, Duane Larry; Baker, Timothy Robert; Murawaski, Sandra Lou;
 Ward, Susan Ruth

PA Procter & Gamble Company, USA

SO Brit. UK Pat. Appl., 42 pp.

CODEN: BAXXDU

DT Patent

LA English

IC ICM C07K007-06

ICS A61K007-16; C07K007-64

CC 62-7 (Essential Oils and Cosmetics)
 Section cross-reference(s): 34

FAN.CNT 1

PATENT NO.	KIND DATE	APPLICATION NO. DATE
KATHLEEN FULLER EIC1700 308-4290		

RN 50-78-2 HCAPLUS
 CN Benzoic acid, 2-(acetyloxy)- (9CI) (CA INDEX NAME)



L65 ANSWER 35 OF 62 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
 AN 1997-145581 [13] WPIX
 CR 1997-145580 [13]
 DNC C1997-046492
 TI **Photoactive** crosslinking cpd. used in pressure sensitive adhesives - comprising a hydrogen abstracting type acrylamide derivatised crosslinking agent having enhanced solubility in non-polar monomers.
 DC A60 A81 E19 G03
 IN BABU, G N; HEILMANN, S M; KREPSKI, L R; MICKUS, D E; SMITH, H K
 PA (MINN) MINNESOTA MINING & MFG CO
 CYC 21
 PI WO 9705101 A1 19970213 (199713)* EN 36p C07C233-49
 RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
 W: CA JP KR US
 EP 837844 A1 19980429 (199821) EN C07C233-49
 R: DE ES FR GB IT
 JP 11510494 W 19990914 (199948) 35p C07C233-49
 EP 837844 B1 20000405 (200021) EN C07C233-49
 R: DE ES FR GB IT
 DE 69607620 E 20000511 (200030) C07C233-49
 KR 99035861 A 19990525 (200032) C07C233-49
 ADT WO 9705101 A1 WO 1996-US12355 19960726; EP 837844 A1 EP 1996-925546
 19960726, WO 1996-US12355 19960726; JP 11510494 W WO 1996-US12355
 19960726, JP 1997-507807 19960726; EP 837844 B1 EP 1996-925546 19960726,
 WO 1996-US12355 19960726; DE 69607620 E DE 1996-607620 19960726, EP
 1996-925546 19960726, WO 1996-US12355 19960726; KR 99035861 A WO
 1996-US12355 19960726, KR 1998-700522 19980123
 FDT EP 837844 A1 Based on WO 9705101; JP 11510494 W Based on WO 9705101; EP
 837844 B1 Based on WO 9705101; DE 69607620 E Based on EP 837844, Based on
 WO 9705101; KR 99035861 A Based on WO 9705101
 PRAI US 1995-505349 19950823; WO 1995-US9600 19950728
 REP EP 486897; WO 9510552; WO 9605249
 IC ICM C07C233-49
 ICS C07C231-12; C07D219-06; C07D311-22; C07D311-30; C07D311-86;
 C07D335-16; C08F020-58; C08F020-60
 ICA C07B061-00
 AB WO 9705101 A UPAB: 20000706
 An acrylamide derivatised **photoactive** crosslinking cpd. of formula CH₂=C(R1)-C(O)-NH-(R2)C(R3)-(CH₂)_n-C(O)-AZ (I) is new. in which R1 = H or 1-3C alkyl; R2, R3 = H, 1-14C alkyl, 3-14C cycloalkyl, 5-12C aryl, 6-26C arenyl having 0-3S,N and **nonperoxidic** O heteroatoms, or R2 and R3 together with the C to which they are attached form a carbocyclic ring contg. 4-12 ring atoms; n = 0 or 1; A = XCR4R5, (X(CH₂CHR1))_m or X-((CH₂CHR1Y))_m; X = O, S, NH or NR4; Y = O, C(O)O, OC(O)NH, OC(O)O or NHC(O)O; R4, R5 = H, 1-6C alkyl or aryl; m = 0 or 1; and Z = moiety derived from (i) a nucleophilic cpd. comprising an acetophenone, **benzophenone**, anthraquinone, 9-fluorenone, anthrone, xanthone, thioxanthone, acridone, dibenzosuberone, benzil or chromone.
 Also claimed is prepn. of (I) comprising solubilising and allowing to react a 2-alkenyl azlactone cpd. and (i).
 USE - To produce crosslinked visco-elastomeric materials used as PSAs, vibration damping materials, transfer adhesives, structural adhesives and protective coatings.

ADVANTAGE - The **photoactive** crosslinking cpd. is prep'd. by a simple addn. reaction which creates no side-prods., has enhanced solubility in non-polar monomers, and can be mixed with unsatd. monomers to form a monomer-polymer syrup having a coatable viscosity which can be applied to a substrate prior to curing, allowing the simple prodn. of multilayered articles.

Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: A08-C07; A08-D; A11-C02B; A12-A05; E06-H; E08-D02; E08-D03; E10-A11B1; E10-A12C1; E10-B01; E10-B02; E10-D03; G03-B02D1

L65 ANSWER 36 OF 62 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-145580 [13] WPIX

CR 1997-145581 [13]

DNC C1997-046491

TI New acryl amido acetyl-contg. compsn. - for use as **photoactive** crosslinking cpd. are prep'd by simple addition reaction.

DC A14 A60 E13 E14 G02 G03

IN BABU, G N; HEILMANN, S M; KREPSKI, L R; MICKUS, D E; SMITH, H K
PA (MINN) MINNESOTA MINING & MFG CO

CYC 20

PI WO 9705100 A1 19970213 (199713)* EN 26p C07C233-49

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: CA JP KR US

ADT WO 9705100 A1 WO 1995-US9600 19950728

PRAI WO 1995-US9600 19950728

REP WO 9510552

IC ICM C07C233-49

ICS C07C233-60; C08F020-50; C08F020-58

AB WO 9705100 A UPAB: 19970326

A **photoactive** crosslinking cpd. of formula

$\text{CH}_2=\text{C}(\text{R}1)\text{C}(=\text{O})\text{NH}(\text{CH}_2\text{nC}(\text{R}2)(\text{R}3)\text{C}(=\text{O})\text{AZ}$ (I) is claimed, where R1 = H or 1-3C alkyl gp.; R2, R3 = 1-14C alkyl gp., 3-14C cycloalkyl gp., 5-12C aryl gp., 6-26C and 0-3, S, N and non-**peroxidic** O heteroatoms) arenyl gp. or 4-12 ring carbocyclic ring; n = 0 or 1; A = XCR4R5, ($\text{X}(\text{CH}_2\text{CHR}1)$) m or $\text{X}-((\text{CH}_2\text{CHR}1\text{Y}))\text{m}$ where X = O, S, NH or NR4; Y = O, C(O)), OC(O)NH, OC(O)O, or NHC(O)O; R4, R5 = H, 1-6C alkyl gp.; m = 0 or 1; and Z = moiety derived from aceto- and **benzophenone**, anthraquinone, 9-fluoroenone, anthrone, thio(xanthone), acridone, dibenzosuberone, benzyl or chromone. Also claimed is mfg. the **photoactive** crosslinking cpd. by solubilising and reacting a 2-alkenyl azlactone cpd. and nucleophilic acetophenone, and cpds as previously mentioned.

USE - The photoreactive crosslinking cpd. can be used to crosslink e.g. acrylic adhesive compsn.

ADVANTAGE - Involves a simple addn. reaction and no side prods. are created.

Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: A01-D06; A08-C07; A11-C02B; E10-A11B2; E10-A12C2; E10-D03A; E10-D03D; G03-B02D1

L65 ANSWER 37 OF 62 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1996-286256 [29] WPIX

CR 1995-274774 [36]

DNC C1996-091422

TI New di oxirane cpds. - used in aq. media for **bleaching** fabrics or **removing stains** from hard surfaces at room temp..

DC D25 E13 F09

IN HEFFNER, R J; STELTENKAMP, R J

PA (COLG) COLGATE PALMOLIVE CO

CYC 1

PI US 5525121 A 19960611 (199629)* 11p D06L003-02
KATHLEEN FULLER EIC1700 308-4290

✓
ADT US 5525121 A CIP of US 1994-245317 19940518, US 1995-455178 19950531

FDT US 5525121 A CIP of US 5437686

PRAI US 1995-455178 19950531; US 1994-245317 19940518

IC ICM D06L003-02

ICS C11D003-20; C11D003-395; C11D007-54

AB US 5525121 A UPAB: 19960724

Di:oxirone cpds. of formula (I)-(III) are new.

USE - (I)-(III) are **bleaching** agents formed as intermediates when a compsn. comprising a **peroxygen bleach** cpd. and a decalindione **peroxygen bleach** activator is contacted with water. During **bleaching**, (I)-(III) revert back to the original **diketone** and therefore behave as catalysts. The compsn. is used directly in aq. soln. for **bleaching** and/or **removing stains** from fabrics and hard surfaces at room temp. or is used as an additive for a cleaning compsn. such as a powdered laundry detergent, non aq. laundry detergent, scouring powder, hard surface cleaner, powdered or non-aq. automatic dishwashing compsn., hair **bleaching** compsn., wound cleansing compsn., **dental** cleansing compsn., paper **bleaching** compsn. or prespotter. The concn. of (I)-(III) formed in water is 1-10000 (pref. 1-5000, esp. 1-1000) ppm.

ADVANTAGE - Fabric damage is reduced.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: D08-B06; D08-B08; D11-B01B; D11-B05; D11-D01B; D11-D01F; D11-D03; E07-A04; F03-B01

L65 ANSWER 38 OF 62 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:217346 HCAPLUS

TI Bacterially formed cadmium sulfide particles: An assessment of potential **photoactivity** by EPR.

AU Holmes, Justin D.; Farrar, Jacqueline A.; Richardson, David J.; Russell, David A.; Sodeau, John R.

CS School Chemical Sciences, University East Anglia, Norwich, NR4 7TJ, UK

SO Book of Abstracts, 211th ACS National Meeting, New Orleans, LA, March 24-28 (1996), BIOT-189 Publisher: American Chemical Society, Washington, D. C.

CODEN: 62PIAJ

DT Conference; Meeting Abstract

LA English

AB Inorg. cadmium sulfide is widely used as a radical catalyst in many redox and synthetic reactions and its use has been proposed for the purifn. of polluted environmental waters. However, in practice these inorg. semiconductors are limited by their thermodn. and kinetic instability. We have developed techniques by which cadmium sulfide particles can be uniformly and reproducibly grown on the cell wall of the bacterium *Klebsiella aerogenes*. In this paper we will show that these **bio-semiconductor particles** have the same photoredox properties as those exhibited by inorg. CdS. The bacterial cells were irradiated with visible light and the radicals produced by the CdS particles were trapped by nitrone based spin traps and then detected using ESR (EPR) Spectroscopy. Two radicals were identified, i.e., the hydroxyl and **hydroperoxyl**. These radicals would be expected from inorg. CdS suggesting that the CdS particles present on the stable bacterial matrix could be readily used to initiate radical chem.

L65 ANSWER 39 OF 62 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1995-274774 [36] WPIX

CR 1996-286256 [29]

DNC C1995-124565

TI Per oxygen **bleach** compsns. for use in laundry detergents, hair **bleaches** etc. - contains bi- or tri cyclic di ketone as **bleach** activator and gives improved **stain**

removal properties.

DC D21 D22 D25 E19 F09
 IN HEFFNER, R J; STELTENKAMP, R J
 PA (COLG) COLGATE PALMOLIVE CO
 CYC 64

PI US 5437686 A 19950801 (199536)* 12p C07C049-303
 WO 9531527 A1 19951123 (199601) EN 39p C11D003-39
 RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG
 W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE
 KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE
 SG SI SK TJ TM TT UA UG US UZ VN
 AU 9525160 A 19951205 (199620) C11D003-39
 NZ 285678 A 19980427 (199823) C11D003-39
 JP 10505365 W 19980526 (199831) 39p C11D007-54
 AU 697043 B 19980924 (199850) C11D003-39
 MX 9605655 A1 19980201 (199954) C11D003-39

ADT US 5437686 A US 1994-245317 19940518; WO 9531527 A1 WO 1995-US6112
 19950515; AU 9525160 A AU 1995-25160 19950515; NZ 285678 A NZ 1995-285678
 19950515, WO 1995-US6112 19950515; JP 10505365 W JP 1995-529856 19950515,
 WO 1995-US6112 19950515; AU 697043 B AU 1995-25160 19950515; MX 9605655 A1
 MX 1996-5655 19961118

FDT AU 9525160 A Based on WO 9531527; NZ 285678 A Based on WO 9531527; JP
 10505365 W Based on WO 9531527; AU 697043 B Previous Publ. AU 9525160,
 Based on WO 9531527

PRAI US 1994-245317 19940518
 REP FR 1163205; FR 2148302; FR 2313445; FR 2690690; US 2115206
 IC ICM C07C049-303; C11D003-39; C11D007-54
 ICS C07C049-00; C07D321-00; C07D407-08; C11D003-20; C11D003-395;
 D06L003-02

ICA C07D493-10
 ICI C07D320:00; C07D321:00
 AB US 5437686 A UPAB: 19991221
 Bleaching compsns. comprising 1-75 wt.% of a **peroxygen**
bleaching cpd. (I) and 1-75 wt.% of a bi- or tricyclic
 → diketone activator of formula (II) or (III) are new: In the
 formulae $R_1-R_4 = H$, 1-8C alkyl, 6-12C aryl, 7-12C aralkyl, F, Cl, Br or
 nitrogen (sic); and m and n = 0-3.
 Also claimed are (1) a **bleaching** soln. comprising water and
 10-1000 ppm of a compsn. as above; (2) a method for activating a
peroxygen bleaching cpd., comprising adding a cpd. (II)
 or (III) to an aq. soln. contg. the **bleaching** cpd.; (3) a
bleaching compsn. as above where component (b) is selected from
 decalin-1,5-dione (IIa), 8a-methyldecalin-1,6-dione (IIb),
 5,8-methanodecalin-1,7-dione (IIIa) and isomers of (IIIa); (4) various
 detergent compsns. contg. a **peroxygen bleaching** cpd..
 (IA) and a decalindione **bleach** activator (IIA); and (5) methods
 for cleaning soiled fabrics, **removing stains** on hard
 surfaces and inhibiting dye transfer using a **bleaching** compsn.
 as above.
 Pref. (I) is a **monoperoxy sulphate** or
monoperoxyphosphate, esp. K **monoperoxy sulphate**. The
 compsns. contain 5-60 (esp. 5-10) wt.% each of (I) and (II) or (III), or
 0.05-10 wt.% when the compsn. also contains a non-aqueous liq. carrier.
 USE - The **bleaching** compsns. may be used in laundry
 detergents, scouring powders, hard surface cleaners, automatic dishwasher
 detergents, hair **bleaches**, wound cleaners, **dental**
 cleaners, paper **bleaches**, prespotters, etc..
 ADVANTAGE - Compared with 1,4-cyclohexanedione monoethylene ketal
 described in US Appl. 7/87062, (IIa) gives comparable **stain**
removal at 80deg.F and (IIb) gives better **stain**
removal at 120deg.F..
 Dwg.0/0

FS CPI
 FA AB; GI; DCN

(photoinitiators contg. org. **peroxides** and, for polymn. of acrylic monomers in **dental** applications)

IT 138105-58-5P 138258-30-7P

RL: PREP (Preparation)

(prepn. of, photocured, for **dental** applications, near-IR photoinitiators for)

L65 ANSWER 49 OF 62 HCPLUS COPYRIGHT 2001 ACS

AN 1991:149940 HCPLUS

DN 114:149940

TI **Tooth-whitening preparation containing hydrogen peroxide and abrasives**

IN Murayama, Ronald K.

PA USA

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-16

ICS A61K007-20

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9009165	A1	19900823	WO 1989-US630	19890215
W: AU, BR, DK, FI, JP, KR, NO, US RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8934320	A1	19900905	AU 1989-34320	19890215
JP 03503762	T2	19910822	JP 1989-504266	19890215
US 5122365	A	19920616	US 1990-582899	19901010
KR 9704033	B1	19970324	KR 1990-72260	19901015
US 5401495	A	19950328	US 1991-747387	19910820
PRAI WO 1989-US630	A	19890215		
US 1990-582899	A1	19901010		

AB A three-component system for whitening human **teeth** comprises (1) a conditioning mouth rinse capable of cleansing the surface of the **teeth**, (2) a viscous bleaching gel contg. **H2O2**, and (3) a viscous polishing compd. contg. an abrasive substance for polishing and an pigmenting substance for imparting a white color to the **teeth**. The three components are applied individually and sequentially to the **teeth**. A **teeth** whitener comprised (1) a conditioning mouth rinse contg. water 97.87, Na saccharin 0.05, Na benzoate 0.30, 5% white distd. vinegar 1.50, Tween 20 0.25, menthol crystals 0.03, (2) a bleaching gel contg. water 79.86, **Carbopol**-934 2.00, 35% **H2O2** 17.14, triethanolamine 1.00, and (3) polishing and pigmenting cream contg. water 14.67, Na saccharin 0.100, Na benzoate 0.50, glycerin 29.00, CM-cellulose 7MF 0.50, 70% sorbitol 8.00, Zeo-49 23.00, **TiO2** 23.00, Texapon VHC needles 0.06, Zoethix 265 0.80, Me salicylate 0.26, and menthol crystals 0.11.

ST tooth whitening **peroxide** titania silica

IT Vinegar

(distd., tooth-whitening preps. contg. hydrogen **peroxide** and)

IT Dentifrices

(gels, hydrogen **peroxide** and abrasives in, for **teeth** whitening)

IT 7722-84-1, Hydrogen **peroxide**, biological studies

RL: BIOL (Biological study)

(tooth-whitening preps. contg.)

IT 64-19-7, Acetic acid, biological studies 7631-86-9, Silica, biological studies 13463-67-7, Titanium dioxide, biological studies

RL: BIOL (Biological study)

(tooth-whitening preps. contg. hydrogen **peroxide** and)

AN 1976:76176 HCPLUS
 DN 84:76176
 TI Bleaching process
 IN Speakman, Peter R. H.
 PA Procter and Gamble Ltd., Engl.
 SO Brit., 4 pp. Addn. to Brit. 1,372,035 (Ger. 2,222,829, See CA 78; 60,061r)
 CODEN: BRXXAA

DT Patent
 LA English
 IC D06L; D04H
 CC 46-6 (Surface Active Agents and Detergents)
 Section cross-reference(s): 39

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1408144	A	19751001	GB 1972-32222	19720710
	CA 998966	A1	19761026	CA 1972-141891	19720511
	AU 7357773	A1	19750109	AU 1973-57773	19730705
	US 3927967	A	19751223	US 1973-377169	19730706
	JP 51004205	A2	19760114	JP 1973-77821	19730710
	ES 416757	A2	19771016	ES 1973-416757	19730710

PRAI GB 1971-14513 19710512
 GB 1971-52398 19711111
 US 1972-259326 19720602
 GB 1972-32222 19720710
 CA 1973-141891 19730709

AB Tea- and coffee-stained cotton swatches were bleached by treating with an aq. soln. contg. 0.4% of a com. granular detergent compn., 0.006% of a **photoactivator** (a mixt. of sulfonated Zn phthalocyanine and Na₂SO₄), and 0.1% Na **perborate** [11138-47-9] as H₂O₂ source and irradiating with visible light (.lambda. 640-90 nm). The **photoactivator** enables evolved O which would otherwise escape unused as mol. O to be converted into singlet O which plays an active part in bleaching the stains. Thus, on washing a tea-stained cotton swatch at 130.degree.F in 1 l. soln. illuminated with a 100 W incandescent lamp, 79% of the stain was removed after 30 min. Daylight and normal domestic lighting may be used as the light source. The method is esp. suitable for domestic laundry operations.

ST stain removal cotton; bleaching **perborate** photosensitizer; zinc phthalocyanine photosensitizer bleaching; laundering compn photosensitizer bleach

IT Bleaching agents
 (perborate, laundering compn. contg. photosensitizers for cotton fabric)

IT Stains
 (removal of, from cotton, photosensitive compn. for)

IT 29H,31H-**Phthalocyanine**, zinc **complex**, sulfonated Zinc, [29H,31H-phthalocyaninato(2)-N29,N30,N31,N32]-, sulfonated, (SP-4-1)-

RL: USES (Uses)
 (photosensitizers, in bleaching of cotton with sodium **perborate**)

IT 3313-92-6 11138-47-9

RL: USES (Uses)
 (bleaching agent, photosensitizer for)

L65 ANSWER 62 OF 62 HCPLUS COPYRIGHT 2001 ACS
 AN 1972:520791 HCPLUS

DN 77:120791
 TI Silver-free photographic film for vesicular process
 IN Baumann, Niklaus
 PA Ciba-Geigy A.-G.
 SO Ger. Offen., 11 pp.
 CODEN: GWXXBX